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#### **REMARKS**

Responsive to the Office Action mailed July 13, 2005, Applicants provide the following. Claims 17-22 have been canceled without prejudice or disclaimer in response to a restriction requirement. Sixteen claims remain pending in the application: Claims 1-16. Reconsideration of claims 1-16 in view of the remarks below is respectfully requested.

By way of this amendment, Applicants have made a diligent effort to place the claims in condition for allowance. However, should there remain any outstanding issues that require adverse action, it is respectfully requested that the Examiner telephone Thomas F. Lebens at (805) 781-2865 so that such issues may be resolved as expeditiously as possible.

### Claim Rejections - 35 U.S.C. § 103

1. Claims 1-16 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over U.S. Patent No. 5,999,670 (Yoshimura et al.).

Yoshimura et al. discloses methods for cutting and polishing a fiber optical waveguide (such as shown in Fig. 9) and for cutting and polishing an optical fiber (such as shown in Figs. 7 and 8). On page 3 of the final office action, the rejection states that Yoshimura et al. does not explicitly express that the desired angle for the angled polished surface recited in Applicants' claim is at an angle other than 45 degrees. Additionally, the rejection states on pages 3-4 of the final office action that Yoshimura et al. does not teach that the light is attenuated and "that transmitting light in an improved and low loss manner through a polished angled surface of light is/known as attenuation of light through the fiber core—which is analogous to the disclosed claimed invention in the specification—and use a conventional vertical cavity emitting laser as a surface emitting laser, since such device with the angle would drastically reduce propagation loss with highly accurate transmission function (emphasis added)." Thus, it appears that

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transmitting light in an <u>improved and low loss</u> manner in order to drastically <u>reduce</u> <u>propagation loss</u> has been equated to the attenuation of light in Applicants' claim 2.

As the Examiner has noted, the purpose of *Yoshimura et al.* is to create a fiber having reduced propagation loss through the polishing techniques described throughout the specification. For example, *Yoshimura et al.* describe a blade that is used to cut a fiber optical waveguide that is connected to a substrate and thus has a reflective surface that is detached from the optical waveguide. The blade has the varying angles and is used to cut an optical waveguide. *Yoshimura et al.* describes in length and gives many examples of cutting the optical waveguide with the blade shown in Fig. 42 in order to increase the reflectance of the oblique end face mirror 9 of the resulting waveguide. The examples given in *Yoshimura et al.* provide many different values for  $\theta$  and  $\phi$  that improve the reflectance of the oblique end face mirror 9 due to the relationship between  $\theta$  and  $\phi$  (see Examples 37 and 38). Thus, *Yoshimura et al.* teaches that improved reflectance can be obtained by having an oblique end face mirror in an optical waveguide that been cut such as shown in Fig. 43.

Having an "improve propagation loss" in Yoshimura et al. means that the light reflected into the waveguide will have <u>less loss</u> than the prior waveguides that Yoshimura et al. is attempting to improve upon.

In exact contrast, Applicants' amended claims recite "wherein light entering the fiber core is attenuated greater than the attenuation of light entering a fiber core of a similar optical fiber having an angled polished surface of 45 degrees." As described in Applicants' originally filed specification, one reason to create this greater attenuation is to prevent saturation of an opto-electric receiver. The Merriam-Webster Online Dictionary (www.m-w.com) provides the following definition for attenuate: "to lessen the amount, force, magnitude, or value of." Thus, while Yoshimura et al. teaches improved transmission and reflectance by having different angled polished surfaces, Applicants' independent claims specifically recite that "the light entering the fiber core

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is <u>attenuated greater</u> than the attenuation of light entering a fiber core of a similar optical fiber having an angled polished surface of 45 degrees." That is, the light entering the fiber core in Applicants claimed invention is <u>lessened in the amount of magnitude</u> as compared to if the angled polished surface was a 45 degree angle. Thus, Applicants system has <u>more loss</u> which is the opposite of the reduced propagation loss and improved reflectance that is taught by *Yoshimura et al.* Therefore, *Yoshimura et al.* specifically teaches away from having an angle of other than 45 degrees in order to <u>attenuate</u> the light in the fiber optic system. *Yoshimura et al.* teaches trying to reduce attenuation, which is the opposite of what is recited in Applicants' amended claims.

Thus, Applicants respectfully submit that Yoshimura et al. does not teach or suggest all of the limitations of Applicants' amended claims and teaches away from having "an angled polished end surface on an end of the optical fiber, the polished end surface at an acute angle other than 45 degrees from a side of the fiber, wherein light entering the fiber core is attenuated greater than the attenuation of light entering a fiber core of a similar optical fiber having an angled polished surface of 45 degrees."

Therefore, Applicant respectfully submits that Yoshimura et al. does not render claims 1-16 obvious and that the rejection is overcome.

#### Prior Art Made of Record and Not Relied Upon

2. On page 4 of the Final Office Action the Examiner cites a number of references that the Examiner has not relied upon in making any a rejection. After each reference, the Examiner makes a general statement that the reference "teaches claimed invention" or "teaches at least claim 1 including vertical cavity surface emitting laser" or "teaches claimed invention with angled end surface of fiber(s) in which light can be attenuated."

It appears the Examiner has made such statements without desiring to present a formal rejection under either 35 U.S.C. § 102 or 35 U.S.C. § 103. As required

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by 37 C.F.R. § 1.104(c)(2) "In rejecting claims for want of novelty or for obviousness, the examiner must cite the best references at his or her command. When a reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable. The pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified (See also M.P.E.P. Section 706)." Therefore, if the Examiner is to further reject the pending claims based upon any of the references listed on page 4 of the Final Office Action, Applicants request the Examiner to designate the particular part of any of the references relied upon and clearly explain the pertinence of the reference for each specified rejected claim as required by 37 C.F.R. § 1.104(c)(2) and M.P.E.P. Section 706.

Furthermore, Applicants specifically traverse all of the statements made by the Examiner relating to the references on page 4 of the Final Office Action. Applicants submit that after a review of each of the references listed on page 4 of the Final Office Action that none of these references anticipate or render obvious any of Applicants' pending claims as amended. If the Examiner does not agree with Applicants' position, Applicants request that a formal rejection be made in accordance with 37 C.F.R. § 1.104(c)(2) and M.P.E.P. Section 706.

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#### **CONCLUSION**

Applicants submit that the above amendments and remarks place the pending claims in a condition for allowance. Therefore, a Notice of Allowance is respectfully requested.

Respectfully submitted,

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